IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: PICKOVER et al.	)))) Group Art Unit: 2113
Application No.: 09/785,572	))) Examiner: Puente, Emerson C.
Filing Date: February 16, 2001	)) **APPEAL BRIEF**
For: METHOD AND APPARATUS FOR SUPPORTING SOFTWARE	))) Attorney Docket No.: I01.008 (IBM Ref. YOR920010037US01)
	)) Buckley, Maschoff & Talwalkar LLC 5 Elm Street New Canaan, CT 06840 (203) 972-0006

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Appellants hereby appeal to the Board of Patent Appeals and Interferences from the decision of the Examiner in the Final Office Action mailed February 26, 2004 (the "Final Office Action"), rejecting claims 1-6, 9, 10 and 14-26.

REAL PARTY IN INTEREST

The present application is assigned to INTERNATIONAL BUSINESS MACHINES CORPORATION, North Castle Drive, Armonk NY 10504, U.S.A.

RELATED APPEALS AND INTERFERENCES

No other appeals or interferences are known to Appellants, Appellants' legal representative, or assignee, which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-6, 9, 10 and 14-26 are pending in the application. Claims 1-5, 9, 10, 20-23, 25 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,553,507 (hereinafter "Cohen"), in view of U.S. Patent No. 6,167,358 (hereinafter "Othmer"). Claims 6, 14-19 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cohen in view of Othmer and in further view of U.S. Patent No. 6,151,653 (hereinafter "Cheng")

STATUS OF AMENDMENTS

No amendments have been filed after the Final Office Action.

SUMMARY OF INVENTION

It is common for software users to encounter errors while using software. (Page 1, lines 11-12) In some cases the errors result from a user's lack of knowledge as to how to properly or most efficiently use the software. (Page 2, lines 7-9).

To solve this problem, embodiments of the present invention provide for a method of supporting a software program in which a controller (FIGS. 1 and 4, reference numeral 400) receives, from a user's computer (FIGS. 1 and 2, reference numeral 200), error information which reports a user error performed by a user while operating the software program. (Page 19, lines 2-8; page 6, lines 19-22; page 4, lines 25-27; FIG. 7, reference numeral 702). The controller, or another system component, identifies a corrective action for the user error, and forwards the corrective action to the user's computer. (Page 19, lines 13-19; page 20, lines 11-19; page 2, lines 20-22; page 5, line 27 to page 6, line 4; FIG. 7, reference numerals 706, 710). The corrective action (or "patch", as it is sometimes referred to in the present application), may include code, instructions or other information provided to the user to facilitate correction of the user's error. (Page 5, lines 3-5; page 20, lines 17-25).

In some cases, the controller may respond to the report of the error by forwarding the report to a third party such as the software vendor, so that the most recent or most effective corrective action may be provided. (Page 19, line 29 to page 20, line 6; FIG. 7, reference numeral 718).

The invention allows for quick and effective software support that can automatically respond to and overcome a user error without significantly disrupting the user's interaction with his or her computer. (Page 20, lines 27-30).

ISSUES

(1) Whether claims 1-5, 9, 10, 20-23 and 25-26 are patentable under 35 USC §103 over Cohen in view of Othmer.

(2) Whether claims 6 and 24 are patentable under 35 USC §103 over Cohen in view of Othmer and in further view of Cheng.

GROUPING OF CLAIMS

Appellants group the pending claims as follows:

Group I – claims 1-5, 9, 10, 14-23, 25 and 26;

Group II – claims 6 and 24.

Appellants believe that claims in different groups are separately patentable, as explained in the following section.

ARGUMENT

As will be explained, the rejections of each of the claims are improper because the cited combinations fail to teach or suggest embodiments of the claimed invention. Therefore, Appellants respectfully request that the Examiner's rejections be reversed.

I.   *The Claims of Group I are Allowable Over the Cited References*

Claims 1-5, 9, 10, 20-23, 25 and 26 stand rejected under 35 USC §103(a) as unpatentable over Cohen (U.S. Patent No. 6,553,507) in view of Othmer (U.S. Patent No. 6,176,358).

Claim 1 is directed to a method of supporting a software program. The method includes receiving error data for at least a first error. The at least first error includes a user error performed by a user in operating the software program. The method also includes identifying a

patch for the at least first error, and forwarding the patch to update the software program. With this method user errors in operating a software program may be automatically remedied by suitable instructions to the user.

Cohen describes a system which provides software updates in response to detecting a problem in a software program. The software update provided is specific to the known fault or problem. (Col. 1, lines 58-62). In Cohen's system, a computer 100 includes a fault detector 108. The fault detector is able to access a server 119. (Col. 1, line 67-Col. 2, line 3; Col. 2, lines 10-20). When a fault is reported to the server from the computer 100, the server searches a database for a solution to the fault and sends the solution, if found, to the computer 100. (Col. 2, line 56-Col. 3, line 8).

As the Examiner concedes at the next to last paragraph of page 2 of the Final Office Action, Cohen does not disclose error data that relates to a user error performed by a user in operating a software program. In fact Cohen makes no mention whatsoever of user errors.

Othmer describes a system in which remotely located computers transmit to a central server information concerning the operation of the remotely located computers, so that operation of the remotely located computers may be monitored. (See, e.g., Col. 6, lines 44-54). One purpose of the monitoring may be beta testing to detect bugs in a program. (Col. 6, lines 39-67). Other potential uses of the information sent to the server from the remotely located computers may be as an input to a customer support function (Col. 16, lines 25-44), identifying sequences of events that trigger crashes, detecting mechanical or electrical failures, or gathering usage statistics for features of a software program (Col. 6, lines 3-10).

Othmer's disclosure is primarily concerned with details of how information can be gathered at the remote computers and transmitted to and managed by the server. Othmer also discusses (e.g., FIGS. 14-16) types of diagnostic information that may be produced at the server based on the data received from the remote computers.

Othmer discusses user error only at one passage--Col. 7, lines 45-48--and only in the context of reporting to an information systems manager problems involved in operation of a company's internal network. Othmer does not teach or suggest identifying a patch for the user error or forwarding such a patch as an update.

As will be discussed in more detail below, Appellants respectfully assert that the rejection of claims 1-5, 9, 10, 20-23, 25 and 26 is improper at least because the cited combination fails to teach or suggest embodiments of the claimed invention. Therefore, Appellants respectfully request that the Examiner's rejection be reversed.

The References Cited by the Examiner Fail (Alone or in any Combination) to Teach or Suggest Embodiments of Group I

35 U.S.C. § 103 authorizes a rejection where, to meet a claim, it is necessary to modify a single reference or to combine it with one or more other references. (*See, e.g.,* MPEP § 706.02(j)). All claim limitations must be considered (that is, the invention as a whole must be compared to the references). (*See, e.g.,* MPEP § 2141.02).

Appellants respectfully assert that Cohen and Othmer, alone or in any combination, fail to teach or suggest embodiments of the present invention as recited in claim 1, at least because both Cohen and Othmer, taken as a whole, fail to teach or suggest a method of supporting a software program in which a patch is identified for a user error performed by a user in operating the software program.

As noted above, the Examiner concedes that Cohen contains no teaching in regard to user errors. The Examiner apparently proposes to make up for this deficiency in Cohen by relying on Othmer's teachings in regard to reporting a user error from a client computer to a server computer. In this regard, appellants respectfully submit that the Examiner's proposal to combine these references is in general unclear and insufficient to produce a <u>prima facie</u> finding of obviousness, and also is tainted with hindsight in that it is impermissibly guided by the teachings of the present application.

In proposing to incorporate teachings of Othmer into Cohen's system, the Examiner first states that

> Othmer discloses receiving error data for at least a first error, said at least first error including a user error performed by a user in operating the software program.

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Applicants do not disagree with this statement.

The Examiner next observes, somewhat irrelevantly,

> Othmer states when a user of a particular client has a software crash, the manager may use the information from the black boxes for that particular computer to help determine the cause of the crash. [citing column 7, lines 42-45 of the reference]

While this is an accurate description of the cited passage of the reference, what is most notable is what this passage does not say, and what the Examiner overlooks, namely that this passage has nothing to do with identifying a patch for a user error, as recited in claim 1. Rather, this passage merely points out Othmer's teaching of information gathering in regard to software operating problems, including user errors. Like Cohen, Othmer fails to teach or suggest automatically taking remedial steps in response to detection of a user error.

The Examiner's conclusion of obviousness of claim 1 is stated as follows:

> It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Cohen and Othmer such that said at least first error including [sic] a user error performed by a user in operating the software program. A person of ordinary skill in the art would have been motivated because Cohen discloses detecting faults during the execution of a software program (see column 2 lines 5-9) and a user error performed by a user in operating the software program, constitutes as a type of fault during the execution of a software program.

As best as appellants can determine from this passage, the Examiner believes that since both Cohen and Othmer are concerned with detecting errors in program execution, and Othmer includes detecting user errors, the concept of detecting user errors can simply be incorporated in Cohen's system for automatic dispatching of software patches.[1] Appellants respectfully submit that this is a mere mechanical assembly of prior art features by the Examiner, fails to consider the invention as a whole, and is impermissibly based on hindsight and guided by the teachings of the present invention.

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[1] It is not clear whether the Examiner intends to refer to column 2, lines 5-9 of Cohen or Othmer, nor does it seem to matter as neither passage is particularly on point.

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Considering claim 1 as a whole, and not merely as an unrelated collection of method steps, one observes that claim 1 calls for identifying a patch for a user error performed by a user in operating a software program. Neither of Cohen and Othmer taken alone, nor their combination, produces the insight provided in the present application that a user error may be automatically remedied by downloading a patch to the user's computer. Cohen, as mentioned above, does not refer at all to user errors, but rather corrects bugs present in programs by automatically sending patches from a server to a user's computer. Othmer recognizes that user errors may be reported from a client computer to a server for the information of a system manager. But Othmer fails to take the further step, taught in the present application, of automatically remedying user errors by downloading patches therefor to the user computers. That is, Othmer fails to recognize that user errors may be treated in the same fashion that Cohen treats program errors, and so may be automatically remedied with patches. Rather, this additional advancement of the art is provided only by the teachings of the present application. Thus Othmer fails to make up for the deficiency in Cohen that was recognized by the Examiner.

The Examiner's discussion fails to take into account this feature of claim 1, and so does not even properly state a prima facie finding of obviousness.

Moreover, even if the Examiner had properly considered claim 1 and attempted to combine Cohen and Othmer so as to produce an embodiment of claim 1, such a combination would be invalid for being based on hindsight, since the references, taken as a whole, fail to teach or suggest the concept of automatically remedying a user error with a patch. As noted above, it is only the teachings of the present application that recognize that a patch for a user error can be identified and forwarded to a user's computer.

Accordingly, claim 1 is believed patentable at least because Cohen and Othmer (alone or in combination and taken as a whole) fail to teach or suggest a method of supporting a software program that includes identifying a patch for a user error and forwarding the patch to update the software program. Appellants respectfully request that the Examiner's rejection be overturned.

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It is noted that all of the other pending claims except for claims 6 and 24, have been grouped with claim 1 and are believed to be allowable on the same basis as claim 1. It is noted that the rejection of claims 14-19 based on a combination of Cohen, Othmer and Cheng does not warrant further discussion, since Cheng does not in any respect concern user errors performed by a user in operating a software program.

II. *The Claims of Group II are Allowable Over the Cited References*

Claims 6 and 24 stand rejected under 35 USC §103(a) as unpatentable over Cohen in view of Othmer and in further view of Cheng (U.S. Patent No. 6,151,643). As a preliminary matter, the claims of Group II are believed to be patentable independently of the claims of Group I because these claims recite the additional element of notifying a third party of the user error, which element is not found in the claims of Group I. It is also noted that the claims of Group II are believed patentable for the reasons stated in connection with Group I, since these claims recite all the features of claim 1, and the additional reference (Cheng) does not make up for the deficiencies of Cohen and Othmer, as described above.

Cheng discloses a system which facilitates software updates. As disclosed in Cheng, a service provider computer 102 stores information concerning software updates from a number of different software vendors. (Col. 7, lines 56-61). A client computer 101 in consultation with the service provider computer determines if there are relevant software updates available for the software on the client computer. (Col. 7, lines 54-56). The user may select a software program to update, and the selected update is downloaded from a software vendor's computer via a URL provided by the service provider computer. (Col. 8, lines 21-22 and 36-43).

In a portion of Cheng apparently relied upon by the Examiner[2], Cheng states that the user may pay the software vendor, which then pays the service provider for the service of coordinating and linking end users to the software vendor's computer. (Col. 9, lines 17-27).

The Examiner's reasoning in regard to claims 6 and 24 is in essence stated as follows:

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[2] The Examiner does not cite a specific portion of Cheng in regard to claims 6 and 24.

...Cheng discloses receiving payment for patch [sic], wherein said payment is received from a provider of said software program, indicating notifying a third party of at least first error.

The Examiner went on to conclude that it would have been obvious to include a payment feature in Cohen's system for automatic updates.

While appellants do not contest the latter point--that payment may be incorporated in Cohen's system, appellants respectfully urge that the Examiner's previous point is a non sequitur. There is nothing about having a payment system that requires that user errors be reported by the software vendor to a third party such as a service provider that acts as an intermediary. Indeed Cheng is silent as to user errors, and the Examiner presents no logical reason why a payment system would include notification to a third party concerning a user error. Rather, it appears that the Examiner has read this feature into the combination of references based on impermissible hindsight guidance from the present application.

In view of the above, claims 6 and 24 are patentable under 35 USC § 103 over Cohen, Othmer and Cheng.
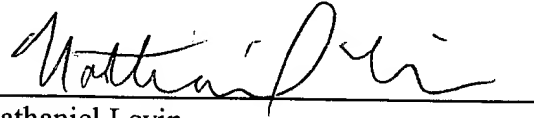
CONCLUSION

The rejections of claims 1-6, 9, 10 and 14-26 are improper at least because the Examiner has failed to cite references which teach or suggest each of the elements of the claims. Therefore, Appellants respectfully request that the Examiner's rejections be reversed.

As required by 37 CFR §1.192(a), this Brief is filed within two months from the date of Appellants' Notice of Appeal (*i.e.*, within two months of April 2, 2004). As such, no extension of time is believed due. However, if any additional fees are due in conjunction with this matter, the Commissioner is hereby authorized to charge them to Deposit Account 50-0510. An Appendix of claims involved in this appeal is attached hereto.

If any issues remain, or if the Examiner or the Board has any further suggestions for expediting allowance of the present application, kindly contact the undersigned using the information provided below.

Respectfully submitted,

May _11_ , 2004
Date

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Attachments: (1) Appendix of claims

APPENDIX

1.   A method of supporting a software program, comprising:

receiving error data for at least a first error, said at least first error including a user error performed by a user in operating the software program;

identifying a patch for said at least first error; and

forwarding said patch to update said software program.

2.   The method of claim 1, wherein said error data comprises:

first data identifying said at least first error.

3.   The method of claim 2, wherein said first data includes an error code.

4.   The method of claim 2, wherein said first data includes an error code and an application identifier.

5.   The method of claim 1, further comprising:

monitoring said software program for the generation of errors; and

identifying said at least first error.

6.   The method of claim 1, further comprising:

notifying a third party of said at least first error.

7 and 8. (Canceled)

9.   The method of claim 1, wherein said user error is a failure to properly operate said software program.

10.   The method of claim 1, wherein said user error is a failure to efficiently operate said software program.

11-13. (Canceled)

14.   The method of claim 1, wherein said forwarding said patch further comprises:

forwarding supporting information to said user device.

15.   The method of claim 14, wherein said supporting information includes an advertisement.

16.   The method of claim 14, wherein said supporting information includes a set of instructions for operating said software program.

17.   The method of claim 1, further comprising:
    receiving payment for said patch.

18.   The method of claim 17, wherein said payment is received from a user of said user device.

19.   The method of claim 17, wherein said payment is received from a provider of said software program.

20.   The method of claim 2, wherein said error data further comprises:
    second data identifying at least a first condition under which said at least first error occurred.

21.   A device for supporting software on at least a first user device, comprising:
    a processor;
    a communication device, coupled to said processor, receiving error information for at least a first error from said at least first user device, said at least first error including a user error performed by a user in operating the software; and
    a storage device in communication with said processor and storing instructions adapted to be executed by said processor to:
        identify a patch for said at least first error; and
        forward said patch to update said software on said at least first user device.

22.   The device of claim 21, wherein said error information comprises:
    first information identifying said at least first error; and
    second information identifying at least a first condition under which said at least first error occurred.

23.   The device of claim 22, wherein said first information includes at least an error code and an application identifier.

24.   The device of claim 21, further comprising instructions adapted to be executed by said processor to:

notify a third party of said at least first error.

25.   A system for supporting software, comprising:

at least a first user device having

a processor;

a communication device, coupled to said processor, configured to send and receive data over a network; and

a storage device in communication with said processor and storing instructions adapted to be executed by said processor to

execute at least a first software program;

monitor said at least first software program for errors; and

forward error information about an at least first error to a controller, said

at least first error including a user error performed by a user in operating the

software program;

said controller having

a controller processor,

a controller communication device, coupled to said controller processor, configured to send and receive data over said network; and

a storage device in communication with said controller processor and storing instructions adapted to be executed by said controller processor to

receive said error information about said at least first error;

identify a patch for said at least first error; and

forward said patch to update said at least first software program on said at least first user device.

26.   A computer program product in a computer readable medium for supporting a software program, comprising:

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first instructions for receiving error data for at least a first error, said at least first error including a user error performed by a user in operating the software program;

second instructions for identifying a patch for said at least first error; and

third instructions for forwarding said patch to update said software program.